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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/777,214 | 02/13/2004 | Takanori Nagai | 040894-7002 | 2497 |

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EXAMINER

LEE, PETER

ART UNIT PAPER NUMBER

2852

DATE MAILED: 05/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

418

| | | | |
|------------------------------|-------------------------------|------------------------------|--|
| Office Action Summary | Application No. 10/777,214 | Applicant(s) NAGAI ET AL. | |
| | Examiner Peter Lee | Art Unit 2852 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 March 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16 and 21-24 is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-10, 12-15, 19 and 20 is/are rejected.
- 7) ☒ Claim(s) 4, 11, 17 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 5 is objected to because of the following informalities:

On p. 29, line 13, change "the cylindrical" to --a cylindrical--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 5-7 rejected under 35 U.S.C. 102(b) as being anticipated by Tatsumi et al. (US 5828935).

Tatsumi teaches a toner supply unit (fig. 5 part 6) (ie. developer cartridge container) comprising: a toner bottle (part 38) (ie. container body including a cylindrical body) having a toner port portion (fig. 17 part 38s) (ie. opening/opening for filling developer) at one end and a bottom portion (fig. 18 part 38-2a) (ie. bottom wall member) provided at the other end opposite from the one end, and from fig. 22 it can be seen that the bottom portion is a separate portion that may be detached from the toner bottle main body (ie. bottom wall member are detachably provided); and a cap (fig. 15 part 68) (ie. detachable portion capable of being attached to and

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detached from the container body) for closing the toner port portion at the one end, the cap is seen to be part of an overall toner hopper portion (fig. 15 part 40) (ie. closing lid) at the same end, and an opening portion (fig. 1 part 48) that is part of the toner hopper portion (col. 10 lines 1-13).

Tatsumi also teaches the cap (part 68) forming one cylindrical wall when capped into a closed position as seen in Fig. 15 (ie. closing lid includes a cylindrical wall formed with the detachable portion); and the toner port portion is seen to be at the same end of the toner bottle as the cap member (ie. developer discharge port provided at the outer end of the cylindrical wall or the outer peripheral surface of the end wall).

Tatsumi also teaches the use of rib members (fig. 15. parts 44b) (ie. coupler mounting portion) that are part of the toner hopper (ie. closing lid). The rib members are used to engage drive claw portions (fig. 15 parts 38q and 38q') that are located at a central location of the toner bottle, and a rotational force is exerted through the rib members to the drive claws to rotate the toner bottle (col. 15 lines 47-67).

Tatsumi teaches the toner bottle to have a neck portion as seen in Fig. 16 and Fig. 22 (ie. developer discharge tube) of cylindrical shape and with an axis that is parallel with that of the toner bottle (ie. cylindrical body of the container body). The neck portion helps define the outer cylindrical wall with the toner hopper member, and the toner port portion is seen to be formed at the outer end of the toner bottleneck portion (ie. developer discharge port formed at the outer end of the developer discharge tube).

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tatsumi et al. in view of Matsuoka et al. (US pn 5903806).

Tatsumi teaches all of the limitations of the claims as laid out above, but does not teach a bottom wall of a cylindrical toner container being integrally formed with a handle.

It is Matsuoka who teaches a grip (fig. 5a part 314) (ie. handle) formed on the opposite end of a toner container from an outlet portion (fig. 5a part 321).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include a grip/handle member on the opposite end wall from a toner outlet as taught in Matsuoka, when building a toner bottle as taught in Tatsumi. One of ordinary skill would include the handle member to allow for easy attach and detach operations of the toner cartridge into the main apparatus (col. 13 lines 10-15).

2. Claims 9, 10, 12-14, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tatsumi et al. in view of Weed (US pn 5895149).

Tatsumi teaches all of the limitations as laid out above. In addition, Tatsumi teaches a cap member (part 68) that is seen to be a cylindrical insertion member inserted into the toner body container at its opening (part 38a) and being detachably connected, and a collecting chuck portion (part 70) (ie. closing lid side connecting portion, used to form an openable closable

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filling port) being a detachable portion of the overall toner hopper portion (fig. 16 part 40) (ie. closing lid).

Tatsumi does not teach the use of a separate resilient thin wall container for storing developer and accommodated in a container body.

It is Weed who teaches the use of a separate toner supply insert (fig. 4 part 20) (ie. resilient thin wall container) made of a plastic material (ie. same as synthetic resin that form resilient thin cylindrical walls and having a closed end (fig. 4 part 28) and an open end (fig. 4 part 32) (ie. having an opening) to be inserted into an empty toner supply cartridge (fig. 4 part 59). Weed also teaches that the toner supply insert (ie. resilient thin wall container) will be locked into the toner cartridge (ie. container body) by lugs (fig. 5 part 38) (ie. fixing members for fixing the resilient thin wall container to the opening of the container body) on the open side of the insert that lodge against the circumferential lip (fig. 5 part 62; note col. 5 lines 44-50) (ie. in a tightly adhered space) of the cartridge opening.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize a separate toner supply insert as taught by Weed and use it to insert/replace toner into a toner supply unit as taught by Tatsumi. One of ordinary skill in the art would have been motivated to do so because the hollow toner supply inserts provide a simply constructed means to supply toner that can easily be replaced and recycled (col. 3 lines 60-65)

3. Claims 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tatsumi et al. in view of Ishida et al. (US 5260750).

Tatsumi teaches a toner supply unit (fig. 5 part 6) (ie. developer cartridge container)

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comprising: a toner bottle (part 38) (ie. container body including a cylindrical body) having a toner port portion (fig. 17 part 38s) (ie. opening/opening for filling developer) at one end and a bottom portion (fig. 18 part 38-2a) (ie. bottom wall member) provided at the other end opposite from the one end, and from fig. 22 it can be seen that the bottom portion is a separate portion that may be detached from the toner bottle main body (ie. bottom wall member are detachably provided); and a cap (fig. 15 part 68) (ie. closing lid) for closing the toner port portion at the one end, the cap is seen to be part of an overall toner hopper portion (fig. 15 part 40) (ie. detachable portion capable of being attached to and detached from the container body) at the same end, and an opening portion (fig. 1 part 48) that is part of the toner hopper portion (col. 10 lines 1-13). Tatsumi also teaches the use of rib members (fig. 15. parts 44b) (ie. coupler mounting portion) that are part of the toner hopper (ie. closing lid). The rib members are used to engage drive claw portions (fig. 15 parts 38q and 38q') that are located at a central location of the toner bottle, and a rotational force is exerted through the rib members to the drive claws to rotate the toner bottle (col. 15 lines 47-67). Tatsumi also teaches a collecting chuck member (fig. 15 part 70) (ie. discharge port opening-closing member) being part of the toner hopper portion and used for attaching to the cap that covers the toner port.

Tatsumi does not teach the rib members (ie. coupler) being attached to a developer mixing member accommodated in the toner bottle.

Ishida et al. teaches a toner agitator (fig. 2 part 81) (ie. Developer mixing member) that is accommodated inside of the toner container (part 61) and consists of a rotary shaft (part 83) that is in turn integrated with a gear (part 86) used to convey a rotating force.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the toner bottle taught by Tatsumi to integrate the toner agitator taught by Ishida so that a coupling member, such as the ribs taught by Tatsumi or the gear taught by Ishida, would transfer a rotational force. One of ordinary skill in the art would have been motivated to modify the toner bottle of Tatsumi to include the toner agitator to have the added benefit of the toner being "double stirred" by both the rotation of the container and by the agitator itself that improves the mixing of the toner (col. 6 lines 59-67).

4. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tatsumi et al. in view of Weed, and further in view of Kusano et al. (US 2002/0102113).

Tatsumi teaches a toner bottle (part 38) (ie. container body) having an opening on one end (part 38a); a toner hopper (part 40) (ie. closing lid) including a cylindrical wall having a cap at the opening (part 68) (ie. cylindrical insertion portion to be inserted from the opening), a bottom wall (part 38 b) (ie. end wall) (ie. end wall connected to the outer end opposite from the cylindrical insertion portion) and drive claw portions (part 38q) (ie. coupler mounting portions) that are used to engage rib portions (part 48b) (ie. couplers), and a toner opening port (part 38a) (ie. filling port), and a toner opening (part 48) (ie. developer discharge port), the toner hopper with the cap member is seen to close the opening to the toner holding chamber of the toner bottle in a state of being fitted onto the toner bottle (fig. 15 shows a closed state);

Weed teaches the use of a separate toner supply insert (fig. 4 part 20) (ie.

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resilient thin wall container) made of a plastic material (ie. same as synthetic resin that form resilient thin cylindrical walls and having a closed end (fig. 4 part 28) and an open end (fig. 4 part 32) (ie. having an opening) to be inserted into an empty toner supply cartridge (fig. 4 part 59). Weed also teaches that the toner supply insert (ie. resilient thin wall container) will be locked into the toner cartridge (ie. container body) by lugs (fig. 5 part 38) (ie. fixing members for fixing the resilient thin wall container to the opening of the container body) on the open side of the insert that lodge against the circumferential lip (fig. 5 part 62; note col. 5 lines 44-50) (ie. in a tightly adhered space) of the cartridge opening. Weed who teaches the use of a separate toner supply insert (fig. 4 part 20) (ie. resilient thin wall container) made of a plastic material (ie. same as synthetic resin that form resilient thin cylindrical walls and having a closed end (fig. 4 part 28) and an open end (fig. 4 part 32) (ie. having an opening) to be inserted into an empty toner supply cartridge (fig. 4 part 59). Weed also teaches that the toner supply insert (ie. resilient thin wall container) will be locked into the toner cartridge (ie. container body) by lugs (fig. 5 part 38) (ie. fixing members for fixing the resilient thin wall container to the opening of the container body) on the open side of the insert that lodge against the circumferential lip (fig. 5 part 62; note col. 5 lines 44-50) (ie. in a tightly adhered space) of the cartridge opening. The reasons for combining Tatsumi in view of Weed have already been stated above.

Tatsumi and Weed do not teach a method of washing and reusing a container body and closing lid.

It is Kusana who teaches a cylindrical toner bottle (fig. 1 part 13) (ie. container body)

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having a mouth end piece (fig. 1 part 18) (ie. closing lid) similar to the toner containers taught by Weed and Kusano. Kusana teaches that the toner bottle and mouth are produced separate from each other and thus can be washed separately (page 4 paragraph [0072]) (ie. washed and reused).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made, to include measures to clean an outer toner bottle (ie. container body) and a mouth piece (ie. closing lid) as taught by Kusana, while throwing out a used toner supply insert (ie. resilient thin wall container) located within such an outer bottle as taught by Weed. One of ordinary skill in the art would want to clean a toner bottle and mouth piece to ensure they be clean enough for reuse (Kusana page 4 paragraph [0072]) while throwing out an old inner toner insert in order to avoid deformations from being acquired (Weed col. 2 lines 34-45).

Allowable Subject Matter

5. Claims 16, 21-24 are allowed over the prior art of record.
6. Claims 4 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Response to Arguments

8. Applicant's arguments with respect to claims 1-24 pending have been considered but are moot in view of the new ground(s) of rejection.

As to claim 8, on p. 45 of the applicants response, it is argued that Matsuoka (US 5903806) does not teach a handle but rather misnames a void space as a grip portion 314. Examiner has maintained the teaches of Matsuoka as a secondary prior art reference to teach the use and benefits of a handle/grip member at the end of a toner container. Examiner has clearly pointed out in the first office action, the exact figure and the place in the specification where the motivation for such a grip member can be found. In col. 13 lines 10-15 it is stated by Matsuoka; "...numeral 314 is a grip portion for making it easy to attach and detach the cartridge 30 when attaching the cartridge 30 on the cartridge attaching portion 41, and it is provided on the other end portion facing one end where outlet 321 is provided. The grip portion 314 is formed to be easily gripped with finger tips and to easily draw out the cartridge 30."

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As to claims 19 and 20, applicant argues on p. 49 of the response that the teachings of Weed and Kusano do not teach "...having a coupler mounting portion and a filling port, and a developer discharge port..." as recited in the claims. These limitations are better laid out by the new prior art reference of Tatsumi in view of Weed, further in view of Kusano as has been explained in this current office action. Tatsumi teaches drive claw portions (part 38q) (ie. coupler mounting portions) that are used to engage rib portions (part 48b) (ie. couplers), and a toner opening port (part 38a) (ie. filling port), and a toner opening (part 48) (ie. developer discharge port).

As to the other dependent claims which applicants argue should be in case for allowance due to a prima facie case of obviousness not being established due to all of the claimed limitations not being taught, Examiner asserts that the new claim rejections laid out above will further explain the limitations being taught by the prior art references.

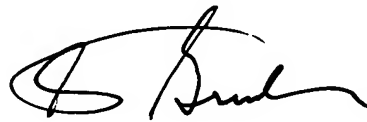
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Lee whose telephone number is 571-272-2846. The examiner can normally be reached on mon-fri 9:00 am-5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur Grimley can be reached on 571-272-2136. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PL 5/26/2005

A handwritten signature in black ink, appearing to read 'A. Grimley', with a stylized flourish at the end.

**Arthur T. Grimley
Supervisory Patent Examiner
Technology Center 2800**